

## REMARKS

In response to the October 18, 2006 Office Action, Applicants respond to the Examiner's detailed action with the following remarks. Reconsideration is respectfully requested.

Applicant respectfully notes that the Examiner has erroneously stated that Claim 9 is pending in the application. Claim 9 has previously been cancelled and is not pending in the application.

### Claim Rejections – 35 U.S.C. §103

Responsive to the Examiner's rejection of Claims 1 – 20 under 35 U.S.C. 103(a) as being unpatentable over U.S. 4,350,509 by Alseth ("Alseth") in view of U.S. 6,096,207 by Hoffman, Jr., et. al. ("Hoffman"), Applicant respectfully requests reconsideration. To establish *prima facie* obviousness of a claimed invention there must be some suggestion or motivation to combine reference teachings, and all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). The Applicant respectfully notes that the Examiner has erroneously stated that Hoffman is "newly introduced." The Examiner has previously cited Hoffman in his August 22, 2005 Office Action, and dropped Hoffman as a reference in response to Applicant's remarks in his April 25, 2006 Office Action. Applicant thus disputes the examiner's characterization of the Hoffman reference in his present Office Action.

The examiner relies on Alseth in view of Hoffman to disclose the limitations as recited in Claims 1 – 20 (Applicant notes that Claims 1 – 8 and 10 – 20 are the only claims pending in the application). All the claim limitations are not taught by Alseth in view of Hoffman.

First, the Examiner relies on Alseth to disclose "a disposable air cleaner filter which is a single integral unit and disposed of after use." The examiner's reliance on Alseth is erroneous. Alseth is fabricated from multiple parts which are pressed or sealed together. (Col. 1, lines 40 – 42, stating "we have eliminated all seals **except a single seal required to attach the filter to the adapter assembly.**"). As a result, Alseth is not truly an integral unit. In contrast, the present invention is one piece polyurethane that solidifies into a solid integrated end structure.

Second, Alseth does not disclose nor claim the present invention's detailed configuration of retaining and coupling means, as discussed in Claims 1 – 20. Hoffman does not overcome the

deficiencies in Alseth. Moreover, there is not motivation or suggestion to combine Alseth and Hoffman. Hoffman does not teach a fully disposable filter cartridge with no removable parts, wherein a lower retaining segment and said air cleaner coupling means are integrally formed from a single material. Applicant therefore respectfully submits that Claims 1 – 8 and 10 – 20 are allowable.

Third, Claim 17, from which Claims 18 – 20 depend, teaches a method of removing an improved disposable air cleaner structurally configured in accordance with the invention of Claim 1. Hoffman singularly teaches a method of coupling. In addition, Claim 17 teaches a method of removing an improved disposable air cleaner structurally configured in accordance with the invention of Claim 1. As discussed above, Hoffman does not teach all of the limitations of Claim 1. Therefore, Applicant respectfully submits that Claims 17 – 20 are in condition for allowance.

Hoffman teaches an air cleaner having “a filter cartridge having a generally cylindrical filter medium which defines a cylindrically shaped core space, and a pair of end caps fixed to opposite ends of said filter medium, at least one of said end caps being annular and having an interior cylindrical surface defining an interior space in alignment with said core space,” column 5, lines 35-43 (emphasis added). Hoffman further teaches the “filter cartridge is sleeved over said rigid core element such that...at least one of said end caps is removably **mechanically** coupled to said base of said support core assembly...and a reusable support core structure,” column 5, lines 58-62 (emphasis added).

Hoffman does not teach a fully disposable filter cartridge with no removable parts, wherein a lower retaining segment and said air cleaner coupling means are integrally formed from a single material. In contrast, Claim 1 includes these limitations.

Fourth, Claim 1 includes the limitation that the “improved air cleaner is disposable.” This claim is distinctive from Hoffman because the language “disposable” indicates that the air cleaner has no removable parts and the *complete* air filter unit is disposable, while both Alseth and Hoffman teach a removable end cap mechanically coupled to the base of a support core assembly, and a reusable support core structure. Claim 1 and its dependent claims are directed to an invention that has the advantage of being entirely disposable whereas Hoffman requires a generally complex and time-consuming procedure for the replacement of certain parts of the air cleaner. Moreover, Hoffman would likely require additional tools to replace the enclosed air

filters, unlike the claimed invention (paragraph [0028] of the published application). Claim 1 is limited to an entirely disposable air cleaner with no removable parts. Applicant respectfully submits that Claim 1 and all claims that depend therefrom are therefore allowable.

Fifth, Claim 1 includes the limitation “lower retaining segment and said air cleaner coupling means are integrally formed from a single material.” This language is distinguishable from Hoffman because the language “integrally formed from a single material” denotes that the “end caps” of the invention are molded. As a result, the invention of Claim 1 is advantageous in that it does not require pipe thread sealant nor Teflon tape to assure a positive seal. In contrast, Hoffman teaches only “a pair of end caps fixed to opposite ends of the filter medium,” column 5, lines 8-9, and “at least one of said end caps is removably mechanically coupled to said base of said support core assembly,” column 5, lines 58-61. Thus, Claim 1 and its dependent claims are directed toward an invention that has the advantage of being comprised of two segments molded together, while Hoffman teaches an air filter where all the components are separate and must be mechanically joined together. This can be clearly seen in Figure 1 of Hoffman. Applicant respectfully submits that Claim 1 and all claims that depend therefrom are therefore allowable.

Sixth, the examiner relies on Hoffman to disclose the limitations as recited in Claim 13, from which claims 14, 15, and 16 depend. Hoffman discloses, but does not claim, that “the filter cartridge may be physically sleeved over the metal core to allow the threaded boss and the threaded bore of the end cap to mate with one another by relative turning motion therebetween. In this regard, the mated threads of the boss and bore are most preferably such to allow approximately one-quarter turn coupling. That is, seated coupling of the threaded bore and the boss is accomplished with only about one-quarter (i.e., about 90°) relative turning movement or rotation therebetween,” column 3, lines 31-42 (emphasis added).

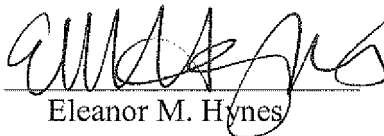
In contrast, amended Claim 13, upon which Claim 14 – 16 depend, teach a method of coupling an improved disposable air cleaner structurally configured in accordance with the invention of Claim 1. As discussed above, Hoffman does not teach a fully disposable filter cartridge with no removable parts, wherein a lower retaining segment and said air cleaner coupling means are integrally formed from a single material. In contrast, Claims 14 – 16 includes these limitations. Thus, Applicant respectfully submits that Claim 14 and all claims that depend therefrom are therefore allowable.

Applicants appreciate the opportunity to call the Examiner but believe that this amendment to the claims and the forgoing remarks fully address the issues raised by the Examiner. On the other hand, the Examiner is invited to call the undersigned attorney if he has any matters to address that will facilitate allowance of the application.

Applicants respectfully request favorable consideration and that a timely Notice of Allowance be issued in this case.

In the event that Applicant has overlooked the need for an extension of time, additional extension of time, payment of fee, or additional payment of fee, Applicants hereby conditionally petition therefore and authorize that any changes be made to Deposit Account No.: 50-3010.

Respectfully submitted,  
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